

Design actions with resilient local communities: Goals, drivers and tools

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Abstract

Since resilience is identified as the capacity of communities and institutions to manage environmental, economic and social urgencies in a good and innovative way, design research and actions create the right conditions to engage resilient processes. This paper is about the critical readings of some research projects developed at the Design Department of the Politecnico di Milano (Italy) through goals, drivers and tools presented as relevant for design actions with resilient local communities.

Keywords: design tools, local communities, resilience.

Introduction

In this paper we tackle the topic looking first of all at the definition of resilience and how design can be exploited in the explanation and the pursuit of resilience. Then we point out the main goals that design for resilience has to keep into consideration. We also identify what we called drivers for resilience that are specific areas of intervention particularly relevant both for participatory design and for the activation of resilience processes. Then, we analyze some tools that we find relevant for the implementation of resilience activities for local communities. Finally, we propose a grid to analyze, in light of the identified goals, drivers and tools, some research projects that have been developed by the Design Department of the Politecnico di Milano (Italy). These research projects put in place similar design strategies in order to act at different scales of intervention and reach specific kinds of objectives.

Design and the pursuit of resilience

Since resilience is identified as the capacity of communities and institutions to manage environmental, economic and social problems in an effective and innovative way, design research can be pointed out as an activator for the right conditions to engage resilient processes (Walker *et al.*, 2004; Colucci, 2012; Graziano, 2012; Pisano, 2012; Rodin, 2014; Pinto, 2015).

We are especially interested to resilience, on a small scale. According to the literature, resilience on a small scale has mainly to do with the maintenance and improvement of the quality of life of individuals, which can be achieved thanks to the creation of desirable contextual conditions. Many intangible elements, which have to do more with social capital than with economic capital, have to be taken into consideration and design methods are very useful in highlighting and making explicit resources, tools, relationships, etc. that usually remain hidden. Narra-

tives, participation, and co-design are suitable approaches for creating and facilitate visible connections, which in a small scale can help resilience (Fassi and Sadini, *in press*).

In our view, designing for resilience means to:

- (i) interpret resilience in a more positive way. According to Manzini, resilience as to be understood as “a deeper expression of the human character and, at the same time, as ground for a possible reconciliation between human beings and nature, between human beings and the irreducible complexity of our world” (2015, p. 22);
- (ii) take into account four different features of the socio-technical system: diversity, efficiency, adaptability, and cohesion (Fiksel, 2003)

In the following pages we will develop our understanding through the identification of goals, drivers and tools for resilience.

Goals

According to the previous paragraph and the soft levers which design is able to activate and use, we have identified three main goals that can be reached thanks to the use of design research and actions in the matter of resilience (Fassi and Sadini, *in press*): the engagement of people, the development of long-term economic strategies and the influence on policy agendas. These three goals are important for resilience processes and are able to influence the activation of forward looking strategies in order to grant the socio-economic sustainability of communities.

In the next paragraphs, we are going to deepen these three main goals.

Engagement of people

Through the years designers moved from being solutions-developers for people to professionals creating

with people, thus allowing people to design by and for themselves (Brown, 2009). Looking specifically at resilience issues, engagement is becoming the keyword and a necessary practice for the achievement of high standards in quality of life. Through design practices, which actually can be seen as resilience practices, it is possible to build or re-build a substratum of social capital, which is one of the most valuable capitals for regions and communities (Bourdieu, 1980; Granovetter, 1983; Putnam, 1993). Looking for example at the city of Milan, Italy, the construction and establishment of a renewed social capital is happening in public spaces, through collective moments, supported by both physical and virtual networks. These activities of engagement are not necessarily framed outside the market and promote social change through inclusion and relationships, for example:

interventions of recovery and functional redefinition of farmsteads (*cascine*); social housing projects to give access to the real estate market and to improve deprived areas of the city; use of kitchen gardens as educational tools in schools and as instruments of empowerment, collaboration and improvement of urban areas.

Development of long-term economic strategies

The sum of repeated and cyclical events are able to set in place practices, which might not have an immediate result in terms of economic improvements but through time are able to activate other kinds of economies that are hidden. We can talk about the creation of a certain kind of environment (Marshall, 2013 [1890]; Becattini, 1979; Santagata and Bertacchini, 2011). Aside from infrastructures, building a creative climate or *people climate*, as Richard Florida (2002) calls it, results to be even more important. This “climate” is nurtured by several *soft factors* which include, for example, an attractive residential environment, tolerance and alternative lifestyles, a lively cultural scene, and the presence of meeting places for business and leisure purposes where the flow of knowledge and information takes place (Musterd *et al.*, 2007). Other theories, such as Field-configuring events (Lampel and Meyer, 2008; Sedini, 2011), stress the capacity of recurrent practices, activities and events are able to influence and prorogate the consolidation of economies even not directly connected with business but which have economic fallbacks in terms of facilitation and empowerment. Usually, policies, which try to give a new image of a city (even a fake one), are organized by short term and task oriented projects. However, those policies are usually soon disembedded and deterritorialized and very far from what can be defined as authentic (Peck, 2005). This influence on policy agendas is going to be discussed in the next section.

Influence on policy agendas

With the shift to the so-called *Experience Economy* (Pine and Gilmore, 2011) the interdependent relationship between production system (economy) and urban cultural environment (culture and territory) became part of the agenda of the policymakers around the world (Scott, 2006).

There are two main ways in which design can contribute to the development of specific policy agendas. The first is direct and is explicit in the cooperation of institutions in some research projects with the clear intention of having insights and recommendation for policies implementations. The document of the European Commission “Implementing an Action Plan for Design-Driven Innovation” (2013) states that aesthetics, can be a strategic means to foster innovation. In order to exploit these capabilities of design events, projects and initiatives are needed across Europe with a particular attention to the involvement of the public sector policy-makers. The goal is that to acknowledge them about the possibilities and the capabilities of design in generating new economic and social value (Sedini, 2015).

The second is indirect and it is carried out through the capacity of certain research projects to throw some light and increase attention on specific scenarios that, if institutions are careful enough, can become a part of policy agendas.

Drivers

In this section we are going to analyze what we can call drivers for resilience, that are thematic frames within which participatory design activities can be organized and developed in order to activate territorial resilience practices. These drivers (Craft and DIY, Communities and Social Innovation, Arts and Cultural Heritage) have much to do also with the development and the implementation of new business initiatives.

Craft and DIY

Particularly important for resilience are:

- the capacity of enterprises for innovation;
- the ability of the entrepreneurial environment to create new opportunities;
- the attitude of institutions and individuals to be reactive.

In this view it is easy to understand as policies aimed at attracting creative and innovative knowledge skills can be crucial for resilience (Sotarauta, 2005); also because, Creative and Cultural Industries seem to have the highest levels of resilience to the crisis, even if even this sector was penalized (Stumpo and Manchin, 2014).

Craft is a specific and particular sector that it is nowadays in between tradition and innovation.

We noticed a renewed attention for traditional type of works in our societies, such as craft. It seems that in periods of recession the interest towards craft tends to increase (Frayling, 2012). As Sennet (2008) states, there are deep connections between material consciousness and ethical values; therefore the practice of craftsmanship can be directly connect to the creation of a positive cultural environment and the increase of social networks. Craft can be defined as an agent of change, able to give shape to social relationships, since this kinds of knowledge are passed mainly (but not only) through social interaction (Fuad-Luke, 2011). In addition to that, crafts can also contribute to give shape to a sustainably aware future, also as a reaction to mass production (Dillon, 2012). The combination of craft and digital technology has given shape

to a new era for DIY (Do-it-yourself) practitioners. Makers seem to be protagonists of a new “revolution”. Technology has been able to widen the access to tools and support for designing and making (Bunell and Marshall, 2014). This fashion also influence the cities (and places in general) composition and stance. Think about the creation of Hubs, Fab Labs, Makerspaces where digital technologies are accessible and quite affordable and give new opportunities for people first of all to learn and then to design, test and (eventually) sell in a global community (Bunell and Marshall, 2014). In these spaces, it is both possible to play, experiment, increase knowledge and also to enlarge one own social network and, more in general, social cohesion (von Streit and Lange, 2013; d’Ovidio and Ranci, 2014).

The potentialities of craft and DIY practices to mobilize community capabilities are directly connected to the second driver that we propose in this section: communities and social innovation.

Communities and social innovation

As we mentioned before, the circulation of knowledge and information has been favor by the rise of the *Network Society* (Castells, 1996). The availability of connection with other people resulted in the so-called traces of communities (Bagnasco, 1999), which are continuously created and re-created and share the same values, knowledge and goals.

The business world is more and more careful about these communities that actually have the power and the willingness to answer social issues which are no more fully in charge of the welfare system. In order to overcome this “emptiness” several start-up or even volunteer activities are focusing on the development of relationships and networks. These kind of projects or ideas try to connect different generations or cultures, for example, trying to avoid isolation that some people (such as seniors or foreigners) are used to experience. Therefore, people who participate in those kind of (business) activities usually hold a double role: they are both consumers and suppliers of the service. This new way of participating in the consumption world favors and contributes to those processes of social construction of meaning (Codeluppi, 1992). An economy of this shape has been defined as Social Economy (Phills *et al.*, 2008) and it is mainly based on the use of digital networks, on the blurred boundaries between production and consumption, on collaboration and on the crucial importance of values. Social Innovation is included in this definition. As Manzini states, it corresponds to the definition of participatory design (Manzini and Rizzo, 2011) because:

- both are constituted by very dynamic processes which include co-design activities oriented also to the construction of participants approval;
- designers can participate in these activities as facilitators but also as conductors and project creators;
- co-design activities are very complex and need artifacts which were explicitly thought and designed.

Arts and Cultural Heritage

Performing and visual arts can have an important role for the promotion of territories, the interpretation of the value of territorialization, the involvement of local com-

munities, the development of sustainable forms of tourism, etc. The connection between arts and cultural heritage can be particularly fruitful for the mutual advantages that both create for the other. Culture and creativity have been crucial pillars for the valorization of cities, regions and nations. Arts and culture both in their tangible and intangible manifestations are economic factors able to have a great footprint on the economy of cities, regions and nations. In addition to that, arts and culture are probably the most effective elements able to give shape or to take part in the definition of the image (brand) of a place. Finally, arts and culture are means to develop good communication among different groups of citizens and therefore favor social integration (Vicari Haddock, 2010). Moreover the chance of cross-fertilization which arts sectors allow with other industries, such as ICT, it is very interesting (Throsby, 2008). Looking at the role of participation and ICT, *Convention on the Value of Cultural Heritage for Society* (Council of Europe, 2005) clearly stated that heritage has to be framed in a wider way, enlarging the definition of what cultural heritage is. It also stressed the role of people, participation and engagement in order to take some distance from a conventional preserving view to the perspective for the development of a future heritage. New technologies are clearly having a big role and impact in this change of view, trying, through social media, to encourage visitors to actively interact with heritage contents (Giaccardi, 2012). New technologies actually allow new opportunities to use arts and cultural heritage for the development of a sense of place, for the construction of a personal and collective identity, and for the success of tourism sector. We are attending to a further shift of the loss of “aura” of the artistic object described by Walter Benjamin in his book *The Work of Art in the Age of Mechanical Reproduction* (2008 [1936]).

Tools

We selected some specific tools for participatory design which we tested in several research carried out by the Design Department of the Politecnico di Milano. In our opinion, these tools are particularly efficient for resilience strategies.

- Co-design workshops: by engaging inhabitants to get expert knowledge that other experts do not have through a collection of information on how to solve wicked problems and exploring fuzzy opportunities (Visser *et al.*, 2005; Sanders and Stappers, 2008). Co-design could be done through several levels of people involvements, the workshop includes their direct and (pro)active engagement by using applied techniques (visual, practical, etc) in different steps. Workshops are led by a designer who activates the interaction among participants to generate solutions. The ones our research is based, usually last from few hours to a no more than a full-day and include up to 50 participants and 5 facilitators.

- Prototyping events: by a Participatory Action Research (PAR) where to test ideas immediately through a one day event involving people as users using design tool-kits. A prototype not only can be viewed as a thing (an object) (Anders *et al.*, 2011) but rather as socio-material relations where matters of concerns can be dealt with (Björqvinnsson *et al.*, 2010). That is why the prototyping



Figure 1. Photo by C. Sedini, *Monnalisa-effect*, ongoing project on tourism, participation and new technologies.

action is for us connected to an event where not only products/spaces/services are shown and but where relations are taking place helped by the use of toolkits. The toolkits are made to be used directly by the end users empowering them to develop certain actions or to raise specific goals. This kind of fast small design experiments allowed to come to quick conclusions and continue towards more stable and organized solutions (Meroni *et al.*, 2013).

- **Calls for projects:** by enlarging the range of solutions through the collection of several ideas focused on a specific topic. This tool allows the creation of a network of proposals, the comparison among them and to help innovation to be used at a bigger scale. Call for projects are usually open to a wide range of stakeholders, including professionals, who answer to a specific brief with some outcomes to be assessed by a committee based on the provided requirements.

- **Social media strategy:** by disseminating both the results to scale up their use and awareness towards specific issues and solutions. The use of social media and social networking can disseminate information and dialogue on a full range of strategies toward long-term sustainability and well-being in the community (Lachapelle, 2011). It supports the spreading of information related to design actions in local context, allowing them to be used as best practices and to raise a high number of interactions.

Case Studies about participatory design and resilience

In this section, we are going to propose a grid of analysis in order to have a critical reading about some of the design research and actions developed at the Design Department in the Politecnico di Milano.

Coltivando - The convivial garden at the Politecnico di Milano

Description

Coltivando is a design experiment conceived within the framework of two research programmes run by POLIMI-DE-SIS Lab, a member of the DESIS Network, at the Politecnico di Milano Design Department. The first programme – ‘Human

Cities, reclaiming public spaces’ (2010-2012) – worked on the regeneration of public spaces for urban communities. The second – ‘Feeding Milan, energies for change’ (2010-ongoing) – aims to shorten the food chain in the Milanese region. It is a vegetable community garden open to the neighbourhood and to the university staff and students.¹

Goals

Engagement of people

Coltivando is in the public university space of the Politecnico di Milano's Bovisa campus, helping people of the community to grow their own food and allowing the local community to discover a public place previously hidden to them. It is a change of use for a space that, for a long time has been used as a building site deposit and then as a green area. Change requires people, vision and commitment (Pincetl, 2012) and here it adds social and environmental value to the campus and a new connection with the local community.

A project like Coltivando coupled with service design models helps to address the gap between knowing the problem of unsustainability and finding solutions for individuals, sustainable design practitioners, communities and government through sustainable everyday design thinking and implementation. This is an experiment of collaboration between service and spatial design to merge diverse members of the community, who live in the same place, by engaging them in designing solutions for resilience for a place that suffered through changes in use classification. Bovisa district has been transformed in the second half of the twentieth century by the removal of almost all the big industries where most of the citizens living in the neighbourhood worked. New residential areas and the opening of a railway station connected to the city centre have brought new life to the neighbourhood. There is still a lack of public spaces like green areas and squares where to meet. In late 90s the Politecnico di Milano, hosting the School of Design, was established on the grounds of ‘Ceretti & Tanfani’, a company that produced cable railways and made Bovisa a working class district. Today it is a green space of about 2.5 acres hosting rooms for classes, a workshop, a library, places for seating and a cafe. The campus could be considered as a ‘hidden’ public space (Fassi *et al.*, 2016) since no one is using it but the university community. Most of the people who once knew it as a former factory do not even have the chance to see how it has transformed - not because they are not allowed to enter, but because they think it is for students and university staff only. The two types of ‘users’ (university community and citizens) have very few contact points in common and the Coltivando project is attempting to change this situation.

Target

The local community is mainly composed by retired people, families with young kids with an high percentage of immigrants coming from China and North Africa. The neighborhood hosts one of the highest number of asso-

¹ www.coltivando.polimi.it and <https://www.facebook.com/coltivando>



Figure 2. Photo by Polimi DESIS Lab, *Coltivando* (2012), the building process.

ciations² in the city of Milan, that are actively engaged in many activities to support citizens needs (music lessons, yoga training, private nurseries, Italian language classes, etc.). People involved in the *Coltivando* co-design process were heterogeneous. The range of age is 22-80 years old, including some young kids coming to the activities as auditors and with a high concentration of people in the 35-50 years old range. The university community involved in the same phases was mainly composed by young researchers (25-35 years old) and postgraduate students (22-25 years old). More than 100 people joined the co-design activities from both the communities.

Drivers

Communities and social innovation

Social innovations: solutions based on new social forms and economical models.

All social changes towards sustainability, when they can reduce the environmental impact, regenerate common goods and social fabric (Manzini, 2015).

Coltivando took over twelve months to develop, by a group of people who, every Saturday, spent their time building the DIY garden beds made by assembling prefabricated steel panels; digging channels for the 3000 metres of tubes for the irrigation system; and putting 90 tons of organic soil in the garden beds.

Today *Coltivando* is a community garden made of 100 garden beds containing more than 50 different vegetables and fruits, managed by a team of 15-20 people from the neighbourhood who regularly meet on Saturdays to work and spend time together. The garden is now also recognized as a place in the neighbourhood where people meet and organize happenings and events. This is slowly changing the perception of this public space – it is now less hidden and more open to all.

Tools

Co-design workshops, Prototyping events

Coltivando has been developed by using service design thinking combined with a spatial design approach.

Two main tools were used: the Co-design workshop and the Prototyping events. The garden project has been co-designed considering topics such as service model, governance model, education and programming model, and spatial design. The service model of the garden is based on a collaborative model of sharing responsibilities amongst the group. The first indications of interest for a community project focused on a vegetable garden began in the autumn of 2011 when during “C’è spazio per tutti” prototyping event, a garden bed was designed and a toolkit for community interaction was proposed. That event was the result of a research activity which included 50 international students and a team of 5 research within the Design department. The event proposed 10 different activities to suggest how to open up the campus to the neighbourhood by testing the design actions with the people in the campus. Among this, the garden bed was the most successful. Following this, a design research team was established. According to Sanders and Stappers (2012), “co-creation practised at the early front end of the design development process can have an impact with positive, long-range consequences”. Three co-design workshop sessions were organised between May and June 2012. The first was an academic workshop involving people studying and working in the university, the others were community consultations open to local stakeholders and people from the Bovisa neighbourhood. A community-centred design approach (Meroni, 2008) has been used to engage various stakeholders within the university community as well as those of the local Bovisa neighbourhood and several tools were developed to enable many people to design their own garden.

In each workshop, designers proposed an in-progress concept of the convivial garden, according to the results of the previous session, and asked for feedback about possible spatial layouts and rules for managing the future community. We developed tools to collect data and information from the people including questionnaires, space mock-ups, and games to help them creating their garden both in terms of space usage and service rules. We split the people into groups of experts and beginners, to better understand the needs and the motivations of both categories. They were asked to design in response to such issues as where to place the fruit trees, herbs and vegetables plots; to create special plots for growing experiments, areas to relax and a playground for children; to define the roles of members to run the service and ten basic rules to become a member. At the end of the three co-design workshops, we used feedbacks from approximately a hundred people (experts and beginners, academics and residents) to inspire, and adjust to what was possible, the very first design proposal for the space and for the service model of the garden. The design challenge at the end of this process was to match people’s desires with what was feasible amid the constraints and available budget. After the co-design sessions, the final working project and the final budget were presented for the project start-up, to obtain funds from the university administration.

² 35 associations belong to the official list of the Milan Municipality (n.d.) but more than 70 are active in this area.

Critical issues

Coltivando is now four years old. In the last years, more than 1000 people came across the space and the activities within. The co-design and co-construction phases were the most attractive and interactive. People from different range of age and social background came across the activities for short term (from 1 hour to half a day) or long term (1 full day every week). It has been difficult to keep the interaction high until today, since one of the big issues is the continuity in the participation. The core group is now suffering for a lack of people to take care of the garden and less enthusiasm than the first couple of years. The designers research team is developing actions to solve this problem by enlarging the potential users trying to include the immigrants target that was very difficult to get in contact with and involve in the activities. Further the garden itself, even if it is recognized by the neighborhood as one of the key places for socialization, get robbed by anonymous people who use to take the vegetables without any permission. This affects the mood of the participant who are trying to solve this issue by raising awareness about it in the neighborhood.

campUS

Description

"campUS" (2014) is a two years research project developed by the Design Department with the Architecture and Management Engineering departments at the Politecnico di Milano. It was selected at the Polisocial Award 2014³ to be funded as one of the best proposals presented.

"campUS" works for a positive relationship between the space and skills available on university campuses and the local context in which they occur. The relationship between the residential districts and universities passes through the structuring of spaces and activities which allow resilience and facilitate interaction, integration and social cohesion. The "campUS" project fits into this frame-



Figura 3. Photo by Polimi DESIS Lab, *campUS* (2014), co-design sessions in the campus.

work, acting as a possible model of flexible interaction with the surrounding physical and social space, and as an incubator of social practices scalable in the territory.

Goals

Engagement of people, Development of long-term economic strategies

There are four main work packages to be developed in close connection with the local neighbourhood: the convivial garden, social tv, the itinerant pavilion and a business model.

"campUS" is divided into two areas of intervention, "campUS in", actions inside the campus and "campUS out", actions outside the Campus (in the surrounding district and beyond):

- "campUS" in: through research-action, activation of the spaces of the campus as incubators of social practices where social actions (services, spaces, communication systems) are defined, tested and prototyped using the methods of co-design and participatory planning. The results aim at building a package of tools for the dissemination of good design practices, cohesion and social innovation for specific communities in defined areas of the city; aggregation of a number of figures to support the production of content and the development of a communication platform of the district as a system of narrative social practices, catalyst actions and partnerships;

- "campUS" out: definition of a landscape of permanent actions in the neighbourhood that have the potential to lead to social enterprises, through an exchange of prototyped actions for virtuous activities ("campUS" in). The research gives design support, assists with adoption and diffusion of instruments of identity and community-building in the neighbourhood, and aims to identify an innovative business model for the long-term management of these initiatives by directly involving the stakeholders who interact with them.

Target

campUS is mainly addressed to over 65 years old and to NEET (Not Engaged in Education, Employment or Training, 15-35 years old). These targets have been chosen by the research team since they are two key categories in the neighborhood. According to national statistics (ISTAT, 2014), NEET are more than 27% in Italy, and the same percentage is in the Bovisa area where the project is based. Over 65, again according to the national report, are more subjected to depression and suicide. Further the connection in between these two targets could ease the process of cultural and memories exchange, by let them collaborate in some of the expected outputs (community gardens, social tv). More specifically, the social TV did a partnership with a local association dealing with rehab for NEET with minor mental disabilities or problems to be

³ Polisocial (n.d.), the social responsibility programme at Politecnico di Milano, whose aim is to place the university in close contact with the dynamics of change in society, extending the university's mission to social issues and needs that arise from the region, on both a local and global level. The Polisocial Award competition finances the best research projects with social purposes in order to foster scientific research and the realization of innovative services.

connected in some social contexts; while the community gardens get advantage of a partnership with another association where lots of retired local people were eager to start cultivate a piece of common land.

Drivers

Craft and DIY, Community and social innovation

This research combines a theoretical and meta-design dimension and an applied one to experience the dynamics of effective involvement, to test tools and to prototype models of innovative social practices. Campus Bovisa and the districts of Bovisa-Dergano represent the real case study where actions and interventions in the public space may actually involve citizens and other social actors, allowing them to explore original methods of relationship among stakeholders. Skills and expertises developed within the academic context are directly shared with the community to trigger DIY practices (Community garden workpack) even by the use of technology (Social tv workpack). The convivial garden takes its lead from the "Coltivando" project to develop an additional community garden by defining the guidelines to highlight both the hardware component of the project (DIY kit for containers for growing, spatial arrangement of artifacts, sizing etc.) and the software ones (rules, operation, management) in line with, and in support of, existing actions promoted by the municipality. The neighbourhood social TV's aims are the formation and aggregation of a series of professional or semi-professional figures to support its activities. This is to develop a narrative system of identified (and identifiable) social practices, with the goal of providing an opportunity for growth and awareness of the neighbourhood's expressive potential and role in society.

Tools

Prototyping events, Co-design workshops, Social media strategy

campUS takes advantage of previous use of tools in order to implement it and being more effective. Prototyping events were used to test solutions within the community garden workpack. "Il sabato della Boivisasca" was an event held on March 2015, to engage people in a new community garden located 2km far from the university campus. The connection with a local association allowed the research team to get in contact with a large group of citizens interested in the development of the garden. Five design solutions developed by students and instructors were presented at the event and implemented by the interaction with the people. Co-design workshops were used in every workpack as a way to define design solutions, to exchange skills and knowledge, to create awareness about the subjects and strengthen the team of people engaged in the activities. The use of social media (Facebook as the main one), gives users the possibility to interact not only with text-based information, but also with visual information, audio and video content (Zaglia, 2013). Through this kind of interaction we are able to get qualitative informa-

tion about the engagement, along with quantitative data coming from the insights: in their comments, users highlight the most meaningful matters, giving feedbacks about the social experience of seeing themselves as the main characters of a common story and sharing it with their personal audiences on social media (Ciancia *et al.*, 2015).

Critical issues

Some few issues were critic during the two-year programs. Firstly, the creation of a common academic language among the involved researchers from three different departments and discipline (design, architecture and management engineering). Then the creation of a strong network of relationships in the neighborhood with local actors/stakeholders (associations, informal groups, municipality, etc) to guarantee the effectiveness of the results and a good impact on the area. Last, the participation of the people: most of the actions were co-design and put in place with the help of the involved actors, but the participation of the people during the events (connected with the itinerant pavilion work package) or the everyday activities (for the community gardens) was weak in terms of numbers.

CCAAlps-Creative Companies in Alpine Space

Description

CCAAlps – Creative Companies in Alpine Space was a project financed within the Alpine Space Program of the European Union, which lasted three years and it was concluded in December 2014. It was aimed mainly at developing the competitiveness and attractiveness of the Alpine Space Area for the so-called Creative and Cultural Economy. CCAAlps was based predominantly on the collaboration between institutional and governmental subjects, academia and creative and cultural enterprises.

Goals

Engagement of people, Development of long-term economic strategies, Influence on policy agendas

The first goal was mainly addressed through the pilot action called Creative Camp and the organization of an international public event. Creative Camp was developed as an advanced workshop, which had an initial call for ideas and then, after the selection, a very intensive first phase of concept generation followed by a second, longer phase of idea development. Creative Camps included many activities to develop new products and services, enhancing the growth of the local productive system. The international event, named Cross Creativity, was dedicated to cultural and creative industries and brought together over 300 start-ups.

It is easy to understand how these engagement actions were also oriented to the goals of developing long-term economic strategies and influencing policy-agendas. Indeed, CCAAlps was devoted to regional planning, since it was a collaboration project between institutions from six European Countries (Italy, France, Germany, Austria, Slove-

nia and Switzerland), such as States Government, Development Agencies and Chambers of Commerce.

This composition of the research team was due to the specific focus on practical activities explicitly oriented to their translation into policy actions. Indeed, one of the main objectives was that of delivering insights and recommendation for policies implementations about Cultural and Creative Industries.

Target

CCAIPs had as a main target people who would have liked to develop their own business idea in the fields of Design, Fashion and Media. Since we were operating in specific territories, one of the main constrain in the selection of the target was that the Regions taking part in the project wanted to limit the selection to people already living in the region. We did not have a limitation of age, however the participants of the Milanese Creative Camps were mainly composed by young new graduated in design sectors. As it is easy to understand, the working situation of the participants was not well defined: some of them were unemployed, some were doing a stage or similar, some others were freelance or with precarious working contracts.

Drivers

Craft and DIY, Communities and Social Innovation, Arts and Cultural Heritage

The call for ideas to participate in the Lombardy Creative Camp was focus on three main topics: Multimedia, Fashion and Service Design. Drivers mainly emerged by the proposals selected and by the work developed during the period of tutoring and training which they participated in. Three of the most successful ideas were built on the drivers identified and proposed in this paper.

- MakersHub Milano: mainly operate within Craft and DIY driver. Indeed, it is a co-making and co-working space for makers, designers, DIY lovers and enterprises. It is a place for developing innovative products based on the interaction between craft and new technologies (<http://www.makershub.it/>).
- Craftventure: it is focused both on Craft and DIY, and Communities and Social Innovation drivers. Indeed, it is a service that allows young people and tourists to experience artisans' work. At the same time, the

artisans can preserve/renovate/transfer their knowledge thanks to the cultural "clash". This project won the contest during Cross Creativity event (<http://www.craftventure.com/en/>).

- Case Sparse | Tra l'Etere e la Terra (Spread Houses | Between Ether and Earth): this project clearly operate in the "area" between arts and cultural heritage. Indeed, Case Sparse wants to discover and value remarkable areas thanks to the use of contemporary art. After periods of artistic residences in Malonno area (Brescia) the so-called traces left by artists participated in the enrichment of an open-air museum open to the involvement and participation of locals and tourists (<http://www.casesparse.org/>).

Tools

Call for projects, Prototyping events

In a period length of six months, in 2013, all the partners organized and held their own Creative Camp. A general framework was supplied to the partners, which however could plan and manage their camps on the topics more suitable for their regions and more in line with their competences.

Creative Camps where structured in different ways, however all of them had to follow these steps:

- a call for ideas
- the selection of the best ideas at least two days of intensive workshop for the concept development
- a phase of mentoring and coaching
- at least a final event of dissemination

After being selected, the participants actively work on their ideas supported by experts and mentors. At the end of these two intensive days of ideas *re-generation* and concept development, the participants re-framed their initial ideas and presented them to the experts involved. After the final presentation, experts evaluated them again and indicated to the organization team which ideas would be admitted to the next step of mentoring and coaching.

Critical issues

In order to evaluate the activities of the project, several analysis procedures were put in place:

- a customer satisfaction survey, given to the participants at the end of each Creative Camp in order to check their satisfaction with the organization and the contents of the event;
- an evaluation form filled by each Creative Camp manager for the collection of qualitative and quantitative information about the pilot projects in-depth interviews with each Creative Camp manager designed to bring out the strengths and weaknesses of the pilot projects, as well as the possibility to replicate the action model used;
- a final online survey submitted to the leaders of collaborative projects originated by Creative Camps and later accompanied with targeted services, to monitor and detect the results of the training, assistance and other form of support offered.



Figure 4. Photo by C. Sedini, *Creative Camp, Multimedia 1.1*, 2013.

We must say that the satisfaction about the Creative Camp as an instrument to conceive or improve ideas was pretty high: the 70% was satisfied or very satisfied and only the 10% was disappointed by the experience.

As it is possible to see from the chart below, the most critical points concerned the communication of information (pre and post-event).

Actually, a general difficulty in achieving the target has been encountered, specifically for the participation to calls, both local and international, although the most evident problems were found in the latter. One of the weakest points was, evidently, relating to the communication to the public. Often the differences in “language” are in part related to the excessive bureaucratization of the process that the public institution must follow and respect.

Conclusions

In this paper, we identified what are the main goals, drivers and approach that a design strategy for resilience should have to be based on. Then we analyzed each of them, starting from the assumption that design for resilience has to be mainly focused on the participation of citizens and institutions in these processes.

Talking about goals of a design strategy for resilience, we found engagement of people, development of long-term economic strategies and influence on policy agenda as the most relevant three. Drivers are identified as thematic frames particularly suitable for the organization and the development of participatory design activities for resilience. These, which are also in a certain way new business drivers, are: Craft and DIY, Communities and Social Innovation, Arts and Cultural Heritage. Specific design tools for a participatory design strategy for resilience are: co-design workshops, prototyping events, call for projects, social media strategies.

Given these elements for the analysis of projects or even for planning projects which want to have a positive impact and to activate resilience processes, we used them to examine and describe three recent or ongoing projects carried out by the Design Department of the Politecnico di Milano: Coltivando, campUS and CCAIps.

According to Manzini (2015), we need to regard “resilience” with a positive meaning by moving from a mainly defensive one to a more positive one, according to which human beings can be part of the solution. Resilience has actually more to do with social capital than with economic capital. For this reason, participatory methods are particularly suitable to create and facilitate the creation and accumulation of social capital at different scales and for different purposes.

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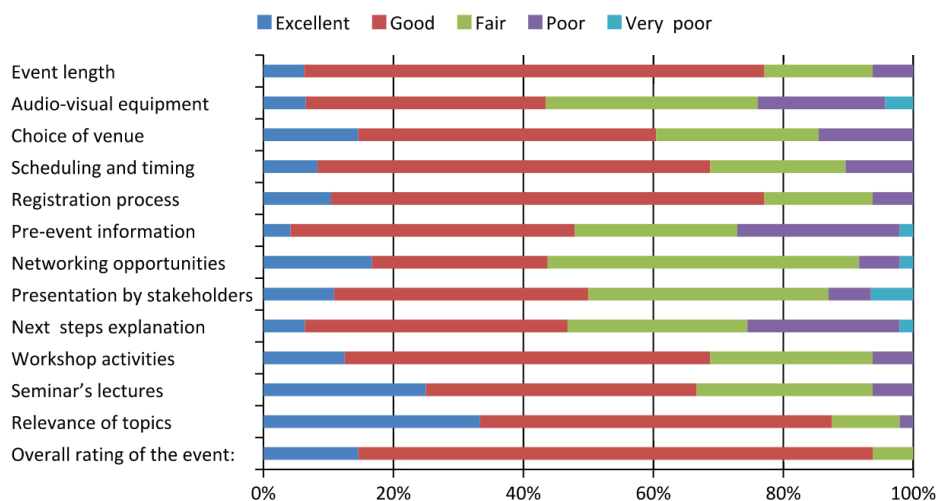


Figure 5. Feedback from the Participants at the Lombardy Region Creative Camps.

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